

Application No.: 09/940,349

Docket No.: JCLA7911

REMARKS**Present Status of the Application**

The Office Action mailed on April 7, 2004, rejected all claims 1-3. Specifically, the Office Action rejected claims 1-3 under 35 U.S.C. 102, as being anticipated by admitted prior art. The Office Action also objected to the drawing FIG. 8 because of failing to show "PRIOR ART". Applicants have amended independent claim 1 above, to overcome the rejections under 35 U.S.C. 102. As amended, these claims clearly distinguish the prior art, and therefore overcome the rejections under 35 U.S.C. 102. After entry of the foregoing amendments, claims 1-3 remain pending in the present application, and reconsideration of those claims is respectfully requested.

To The Drawing

The drawing is objected to because FIG. 8 fails to show "PRIOR ART". Applicants have amended FIG. 8 to add "PRIOR ART". Therefore, this objection has been properly addressed and overcome.

Discussion of Office Action Rejections

Claims 1-3 are rejected under 35 U.S.C. 102(b) as being anticipated by Bradshaw et al. (US 6,101,157). The Office Action deems that Bradshaw et al. has disclosed every claimed element. In response, Applicants respectfully disagree the interpretations for at least following reasons.

Bradshaw provides a method and an apparatus for the focus control capable of eliminating a fluctuation of an optimum gain of a focus serve loop due to a difference of light reflectance of recording surfaces or the like and can attain an optimum focal position of the read light to preferably trace a target recording surface. According to Bradshaw, in order to address level fluctuations of the reproduction RF signal and the focus error signal due to the different light reflectance of recording surfaces, the gain of the amplifier is stepped up and the focus sweep process is repeated to set an optimum gain until the levels of the RF signal and the focus error

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signal, that are obtained when the focus sweep is performed before the reproduction, cross the threshold values.

Bradshaw uses the controller 9 to outputs gain control signals GCc, GCr and GCf to respectively correct the gains of the amplifiers 36-37, 4-6, and ZCP detecting circuit 7 (col. 5, lines 64-67, col. 6, lines 1-3). Namely, the gain control signal for varying the gain is supplied to the adding circuits 36, 37.

According to the Bradshaw reference, it needs to perform an offset adjustment separately after the gain of the amplifiers (variable gain type adders) 36-37, 38-39, or 4 and 6 is optimized by a gain control signal (such as GCc, GCr, GCf).

In contrast, according to the present invention, as shown in FIG 2, the correction offset signals (Vosadd, Vossb) are added to each amplifiers GA, GB, GC, GD. These correction offset signal are the same for each gain. Namely, correction offset signal is not affected by the gain of the amplifier. Therefore, this feature of present invention is not disclosed, taught or suggested by Bradshaw.

The present invention discloses that a correction offset signal with a fixed value is previously added to the input of the amplifier, so that the offset is eliminated even though the offset of the amplifier varies due to the gain variation. This concept of the present invention is different from the Bradshaw reference. The "correction offset signal" is not the gain control signal that causes the offset variation of the Bradshaw reference.

In addition, according to the Bradshaw reference on col. 8, lines 55-63, after the setting of the gain control signal is finished, an offset adjustment is performed to the amplifiers or the adders in order to compensate the offset variation when the controller 9 executes a gain setting.

However, according to the Bradshaw disclosure, the controller 9 performs the offset adjustment to the amplifiers or the adders every time the gain is changed. The Bradshaw disclosure fails to disclose a correction offset with a fixed value is previously added to the input of the amplifier as disclosed in the present invention. The prior art cannot achieve an effect that the correction offset voltage is not necessary to be changed even if the gain is varied.

Furthermore, regarding the structure of the offset adjustment, the Bradshaw reference only

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states "not shown" and fails to clearly disclose the structure of the offset adjustment.

Therefore, the requisite features are recited in the independent claim 1, which are set forth immediately below.

1. (Currently Amended) An optical disc device for changing intensities of light beams illuminated on an optical disc when recording and reproducing on/from the optical disc, the optical disc device comprising:

a photo detecting device divided into a plurality of photo detectors for detecting reflected light beams of the light beams illuminated on an optical disc;

a plurality of amplifiers for changing gains to respectively amplify output signals of the photo detectors when recording and reproducing on/from the optical disc; and

a calculating device for calculating output signals of the amplifiers to generate servo signals, wherein correction offset signals for correcting offset voltages of the amplifiers and the photo detectors are added to the amplifiers, and the correction offset signals are independent to gains of the amplifiers.

(Emphasis added). Applicant respectfully submits that independent claim 1 patently defines over the prior art for at least the reason that the prior art fails to adequately disclose those features emphasized above.

For at least the foregoing reasons, Applicant respectfully submits that independent claim 1 patently defines over the prior art, and should be allowed. For at least the same reasons, dependent claims 2-3 patently define over the prior art as well.

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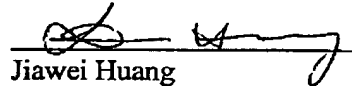
CONCLUSION

For at least the foregoing reasons, it is believe that all pending claims 1-3 are in proper condition for allowance. If the Examiner believes that a conference would be of value in expediting the prosecution of this application, he is hereby invited to telephone the undersigned counsel to arrange for such a conference.

Date: 7/6/2004

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Respectfully submitted,
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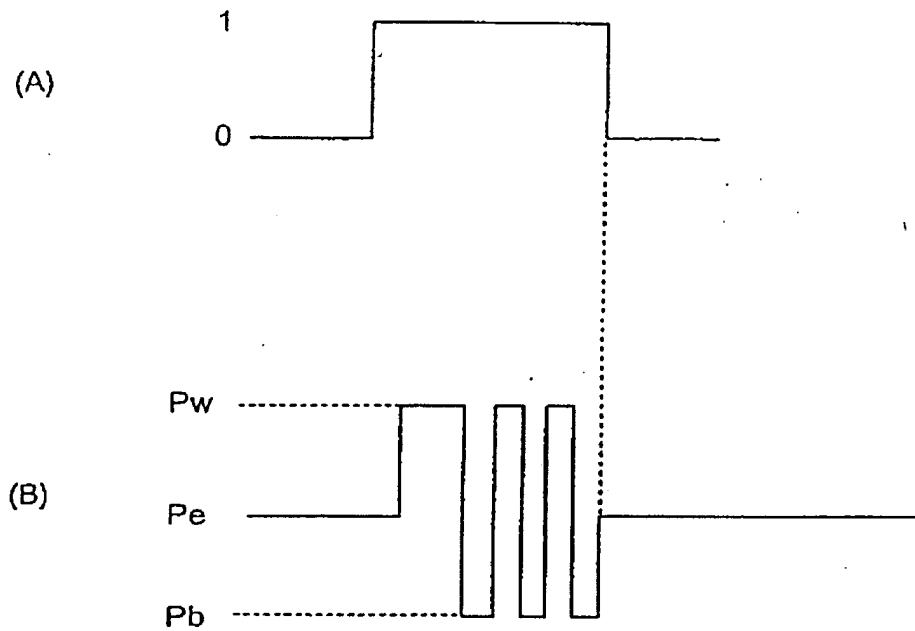
"Replacement sheet"

FIG. 8 (PRIOR ART)

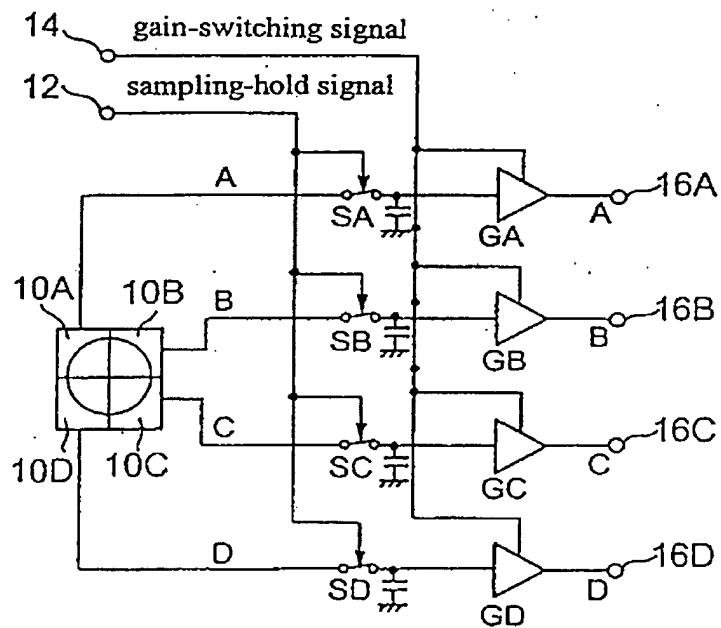


FIG. 9 (PRIOR ART)